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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,571	12/05/2003	Kenichi Suenaga	1422-0611P	7359
2292 7590 02/07/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER MARCHESCHI, MICHAEL A	
			ART UNIT 1755	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/07/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/07/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/727,571

Applicant(s)

SUENAGA ET AL.

Examiner

Michael A. Marcheschi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for silica particles having a size of between 10 and less than 40 nm being present in the composition (see figure 1), as defined in pending claim 1, does not reasonably provide enablement for “silica particles having a size of less than 40 nm being present in the composition (i.e. no lower limit associated with the range). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The size range of the newly added limitation, above, is outside the scope of that disclosed by the original specification since the claim does not define a lower limit.

Applicants state that the previous claims make clear this limitation. The examiner disagrees because it was never defined. In addition, applicants state that the exemplified composition in the specification supports said limitation. The exemplified composition does not support the breadth of the claimed limitation, as defined above.

Claim 1 is objected to because of the following informalities:

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In lines 3-4, the added limitation "wherein silica particles having a size less than 40 nm are present in said composition" should appear at the end of the claim.

In line 15 of claim 1, "the limitation "(R) in nm and 50" should be ""(R) in nm plus 50".

Appropriate correction is required.

The previous rejections based on Koichi et al. (175), Ota et al. (711) and JP 2002-327170 have been withdrawn in view of applicant arguments and after further consideration of the references.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostoker et al.

The reference teaches column 4, lines 20-24, column 7, lines 40-44 and 65-68, column 10, lines 22-25 and claim 10, a polishing composition comprising an abrasive, wherein the abrasive meets the size distribution defined in claim 10 (of the reference). The examiner acknowledges that claim 1 uses alumina, as the abrasive, but the reference clearly defines that colloidal silica can be used in place of the alumina. With this substitution being apparent, the size of the colloidal silica, which would have been appreciated by the skilled artisan, would necessarily follow the size requirements defined for the alumina.

Although the reference fails to literally teach that V (%) is determined to be equal to or greater than the sum of the particles size (R) plus 50, wherein R is 40-45 nm, as defined in claim 1, the size of the silica of the reference can be 40-45 nm (X value) and the size distribution (Y value) can be extremely small (as is apparent from the interpretation of "P" being less than 50% (i.e. reads on 0.001%). Since X can be 40 nm and/or 45 nm and Y is P percent of X, Y can be

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0.001% of 40 nm and/or 0.001% of 45 nm. In view of this, particles less than 40 nm can be present with the bulk of the particles being 40 nm and/or 45 nm and thus since the size of the bulk of the particles can be same, it is the examiners position that the volume of particles of this size is greater than 90% absent clear comparative evidence.

In view of this, the reference is disclosing a substantially mono dispersed distribution (all of the particles can be substantially the same size). Since all of the particles can be substantially the same size (i.e. 40 nm with an extremely small amount being less than 40 nm (as is apparent from the P value), it would follow that the volume frequency of this size approaches 100%, reading on the instant claims.

Applicant's arguments filed ~~10~~¹¹/27/06 have been fully considered but they are not persuasive.

Applicants argue that Rostoker merely teaches that the alumina can be substituted with silica having a particle size of 10-100 nm and thus this reference is silent with respect to teaching any aspect of the claimed invention. The examiner disagrees because the reference states that silica can be used in place of alumina in the composition and implies that the size of the silica can be 40-45 nm. The volume frequency associated with this size is clearly obvious, as defined above which applicants have not clearly argued.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/06
MM

Michael A. Marcheschi
Primary Examiner
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